2 ALTERNATIVES

This chapter describes the alternatives analyzed in this EIS. They are as follows:

1. No Action Alternative: Deny both permit and corresponding ROW applications. This presents the environmental impacts in the United States as if the lines had never been constructed and provides a baseline against which the impacts in the United States of the action alternatives can be measured in the absence of Presidential permits and corresponding ROWs.

2. Proposed Action: Grant one or both permits and corresponding ROWs. This sets forth the impacts in the United States of constructing and operating the line(s) from the Mexico power plants as those plants are presently designed, and it is DOE's and BLM's preferred alternative.

3. Alternative Technologies: Grant one or both permits and corresponding ROWs to authorize transmission lines that connect to power plants that would employ more efficient emissions controls and alternative cooling technologies.

4. Mitigation Measures: Grant one or both permits and corresponding ROWs to authorize transmission lines whose developers would employ off-site mitigation measures to minimize environmental impacts in the United States.

DOE and BLM also consider alternative routes for the transmission lines within the United States under the action alternatives described above.

2.1 NO ACTION

Under the no action alternative, neither of the proposed transmission lines would be constructed and the environmental impacts associated with their construction and operation would not occur. In the case of Sempra, lack of the requested transmission line would preclude the Termoeléctrica de Mexicali (TDM) power plant from operating because there would be no delivery path for the electricity generated. Similarly, in the case of Intergen, the EBC export unit could not be operated because the proposed transmission line would have provided the only delivery path for the electricity generated from that unit.

However, the EAX unit at the La Rosita Power Complex (LRPC) could still operate. The existing SDG&E transmission line has sufficient capacity to transmit the electrical output of the EAX export gas turbine and one-third (90 MW) of the EAX steam turbine output to the United States. The other two EAX gas turbines and the remaining two-thirds (180 MW) of the electrical output of the EAX steam turbine are designated for the Mexico market and would operate under any and all circumstances.

Because DOE and BLM are proceeding with this EIS under the assumption that the proposed Intergen and Sempra transmission lines do not exist, this EIS does not address the removal of their lines and support structures from BLM lands. Should the Presidential permits and ROWs not be granted, the issue of whether to remove the existing lines from BLM lands would be a new Federal action subject to an appropriate separate NEPA review.

2.2 PROPOSED ACTION: GRANT ONE OR BOTH PRESIDENTIAL PERMITS AND CORRESPONDING ROWS

Under the proposed action alternative, one or both Sempra and Intergen transmission lines would be constructed and operated and all generating units at the TDM and LRPC power plants would be able to operate. DOE's and BLM's preferred alternative would be to issue both Presidential permits and ROWs to Sempra and Intergen as their projects are presently designed.

The impacts attributable to the preferred alternative would be those associated with operation of the entire TDM power plant, the EBC unit, the EAX export turbine, and the construction and operation of the proposed transmission lines. If the proposed Intergen transmission line were approved and constructed, the electrical output of the EAX export turbine at the LRPC would be exported to the United States over that line. Therefore, even though the EAX export turbine would be able to operate under the no action alternative, the impacts associated with this turbine are also included in the proposed action.

2.2.1 Descriptions of Proposed Transmission Lines

The proposed transmission lines would be located in the Yuha Basin in the Colorado Desert in the southwestern portion of Imperial County, California, about 10 to 12 mi (16 to 18 km) southwest of the town of El Centro (Figures 1.1-1, 2.2-1, and 2.2-2). Each proposed project would construct a double-circuit, 230-kV transmission line extending from the existing IV Substation south approximately 6 mi (10 km) to the U.S.-Mexico border in Utility Corridor N, where each line would connect with a corresponding transmission line in Mexico (Figures 2.2-3 through 2.2-6). The transmission line support structures would consist of steel lattice towers from the border to just south of the IV Substation, where steel A-frame structures would be used for each transmission line to allow the crossing of the Southwest Power Link (Figure 2.2-3). The Southwest Power Link is a 500-kV transmission line that enters the IV Substation from the east at the substation's southeast corner. After crossing the Southwest Power Link, the proposed transmission lines would be supported by steel monopoles along the east side of the IV Substation and would enter it from the north.

From the U.S.-Mexico border to the last tower south of the Southwest Power Link at the IV Substation, both the Intergen and Sempra ROWs would parallel the existing line. The ROW for the Intergen transmission line would be adjacent to the existing 120-ft (37-m) ROW for the existing SDG&E transmission line and would also be 120 ft (37 m) wide, so that the centerline would be 120 ft (37 m) east of the centerline of the existing transmission line ROW. The